

- (ii) creating a second signature comprising a plurality of parameters related to the associated telephone calls over a second period shorter than the first and more recent than the first;
- (iii) updating the first signature by a weighted averaging with the second signature;
- (iv) inputting the signatures to the anomaly detector; and
- (v) processing the signatures using the anomaly detector to derive the potentially fraudulent telephone calls by detecting unexpected patterns in the telephone calls associated with the entity over the time period.

24. A method as claimed in claim 23 wherein the first signature is created in one of a plurality of predetermined possible formats.

25. A method as claimed in claim 24 wherein the format of the first signature comprises the length of the signature.

26. A method as claimed in claim 23 wherein at least one parameter of the first signature is related to the transmission of messages over a portion of the period and also related to the position of the portion in the period.

27. A method as claimed in claim 26 wherein said at least one parameter represents the number of events made in the portion of the first time period as a proportion of the total number of events made in the whole first time period.

28. A method as claimed in claim 26 wherein said at least one parameter represents the number of events of a predetermined type made in the portion of the first time period as a proportion of the total number of events of the same type made in the whole first time period.

Sub DS } 29. A computer system for detecting potentially fraudulent telephone calls from telephone calls associated with an entity over time, the system comprising:

- C' (i) an input arranged to receive information about the telephone calls associated with the entity;
- (ii) a processor arranged to create a first signature comprising a plurality of parameters related to the telephone calls over a predetermined first time period and to create a second signature comprising a plurality of parameters related to the telephone calls over a second period shorter than the first and more recent than the first; and wherein the processor is arranged to calculate a weighted averaging of the first and second signatures to form an updated first signature;
- (iii) an anomaly detector;
- (iv) an input arranged to provide the signatures to the anomaly detector; and wherein said anomaly detector is arranged to process the signatures to derive the potentially fraudulent telephone calls by detecting unexpected patterns in the telephone calls associated with the entity over the predetermined time period.
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